

LiveNX: Visual Analytics for Cisco DNA

Visual Analytics across Cisco DNA Network Domains

LiveAction LiveNX optimally integrates with the Cisco DNA architecture to provide visual analytics across multiple network domains to ease planning, verifying and operating of Cisco DNA as well as multi-vendor networking solutions.

LiveAction is a DNA Ecosystem partner that has developed deep integrations into Cisco's DNA Ecosystem, complementing the capabilities of vManage and DNA Center. LiveNX delivers consolidated views for overlay-underlay, fabric-based network architectures. LiveNX integrates with DNA network domains such as Cisco SD-WAN and SD-Access, gathering multiple data sets from network elements as well as the domain controllers.

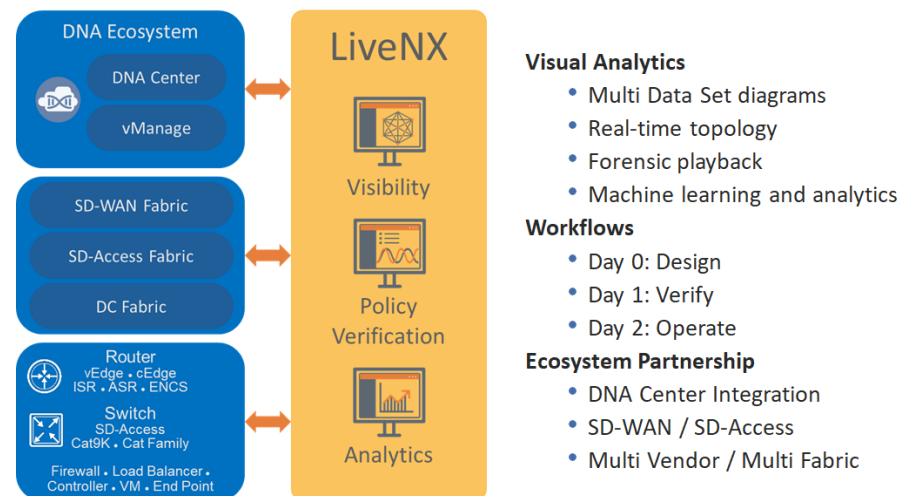
LiveAction LiveNX is a network performance monitoring and diagnostics platform designed to address the needs of intent-based networks (IBN) and covers every domain in a Cisco DNA network as well as multi-vendor networks with consolidated, customizable dashboard views and 3-click operation workflows, ranging from capacity planning to trouble-shooting.

LiveNX can also drive performance tests with the LiveUX module to analyze application performance across any cloud deployment scenario, ranging from SaaS to UCaaS. LiveUX agents can reside in a private or public cloud, across VPCs [virtual private cloud], or embedded in DNA network elements running NFVIS (Network Function Virtualization Infrastructure Software).

Value to the Business

Multi-Domain Visual Analytics: An insurance policy for IT Operations, LiveNX provides comprehensive coverage across multiple DNA domains and multi-vendor networks.

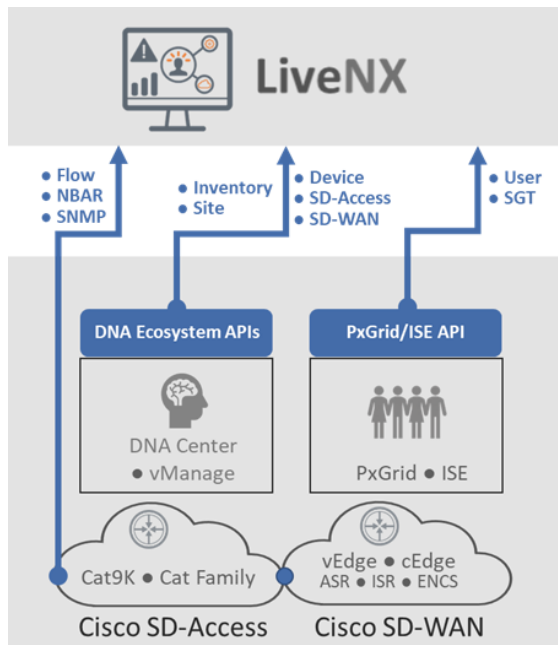
Intent-Based Networking Migration: LiveNX extends unified network performance management across the entire lifecycle of IBN migrations, including support for Cisco SD-WAN and SD-Access. LiveNX provides full visibility into the pre- and post-migration environment, allowing NetOps engineers to plan, verify and operate their current and future network environment.



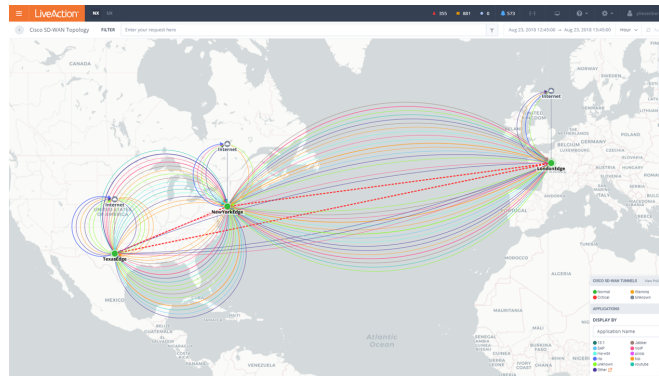
LiveAction LiveNX: Multiple Data Sets from Network Elements and Controllers

Cisco DNA API Integration Overview

LiveNX leverages multiple data sources to provide complete, multi-domain visibility into a Cisco DNA network and eases the planning, verifying and operating of Cisco DNA networks. LiveNX gathers SNMP and real-time flow data from the network elements (routers and switches) as well as the DNA control planes for SD-WAN and SD-Access via REST APIs. It furthermore integrates with Cisco PxGrid to gather user and end-device information.



LiveAction LiveNX and Cisco DNA API Integration

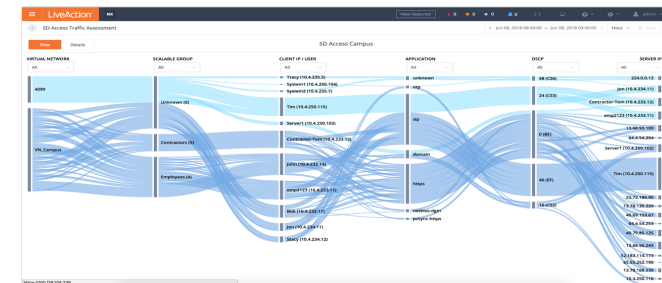


LiveNX SD-WAN Topology View

Cisco SD-WAN

LiveNX pulls data from multiple data sources to provide deep visibility into a Cisco SD-WAN network:

- **Flow** (Netflow) and **SNMP** data from any network element (vEdge, ISR1000, ISR4000, ENCS5000, ASR1000 series) to gather inventory, topology and flow performance information.
- **BFD** (Bidirectional Forwarding Detection) as well as **Applid** (Application Identification) from the **vManage API** in order to gain additional insights into network performance as well as the ability to recognize any application sending traffic for the vEdge network elements. For ISR, ASR and ENCS running IOS XE SD-WAN **NBAR** is used for application recognition.



LiveNX SD-Access Traffic Assessment

Cisco SD-Access

Cisco SD-Access is built on multiple key Cisco technologies. LiveNX processes data from several sources to help customers visualize the SD-Access fabric:

- **Flow** (Netflow) and **SNMP** data from any network element (Catalyst 9000, any Catalyst series as well as Nexus series) to gather an inventory, campus topology and flow performance information.
- **Cisco PxGrid API** (ISE: Identity Services Engine) in order to identify users.
- **DNA Center API** to gather SD-Access semantics pertaining to VXLAN, VN (Virtual Network) and SGT (Security Group Tag) information.